

Human CD20 Transgene expression in mouse B220⁺ cells

Inventor: CHEN et al.
 Docket No.: 11669.0150USW2
 Title: TRANSGENIC MICE EXPRESSING HUMAN CD20
 Attorney Name: Katherine M. Kowalchuk
 Phone No.: 612.371.5311
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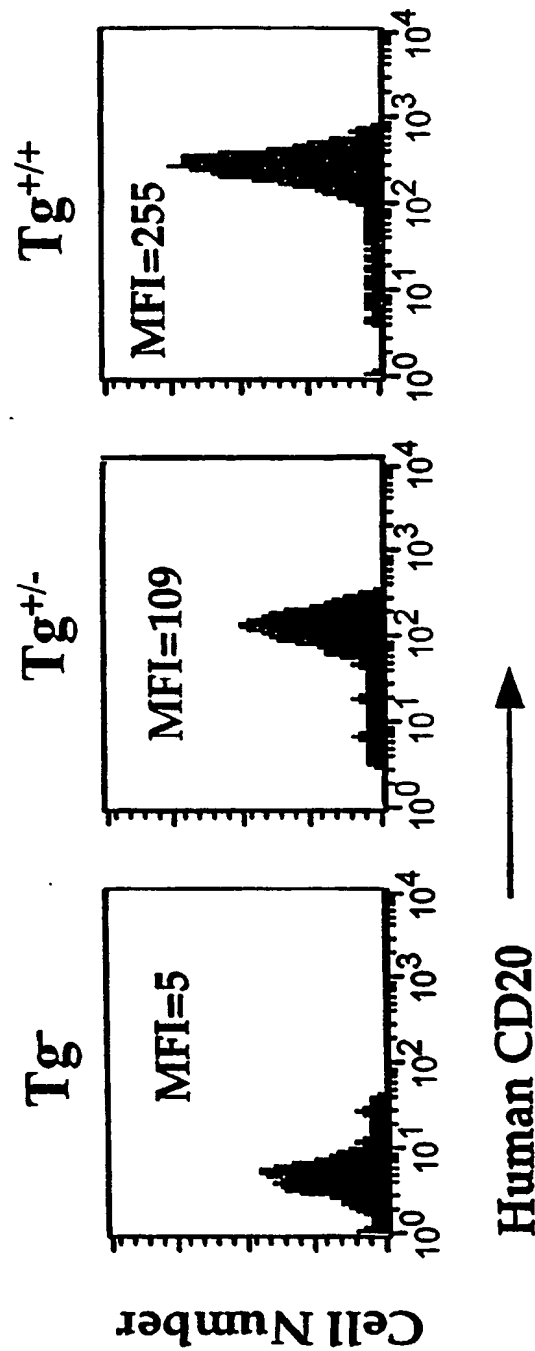


Figure 1

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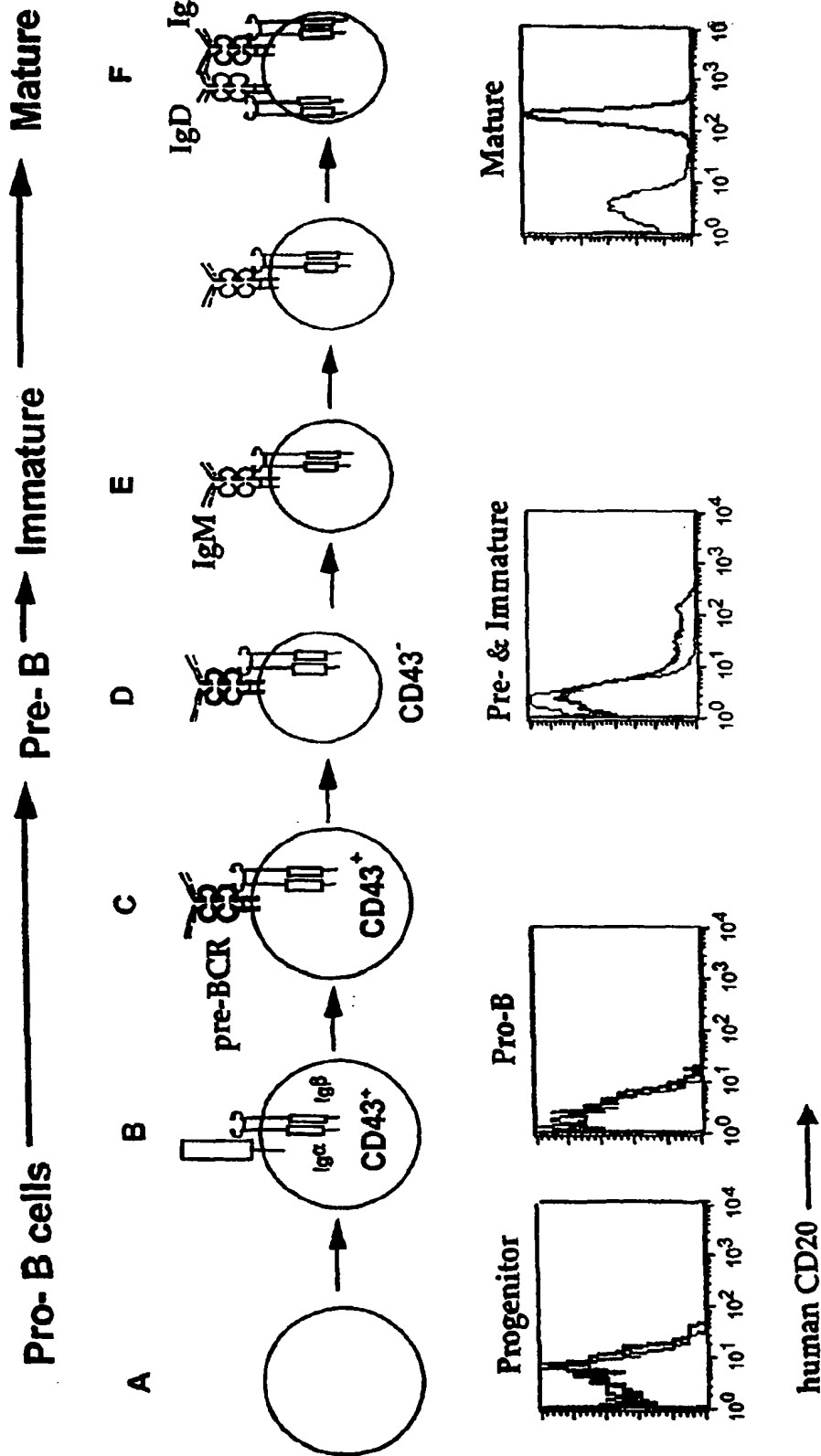


Figure 2

Expression of human CD20 in Tg⁺ mouse bone marrow

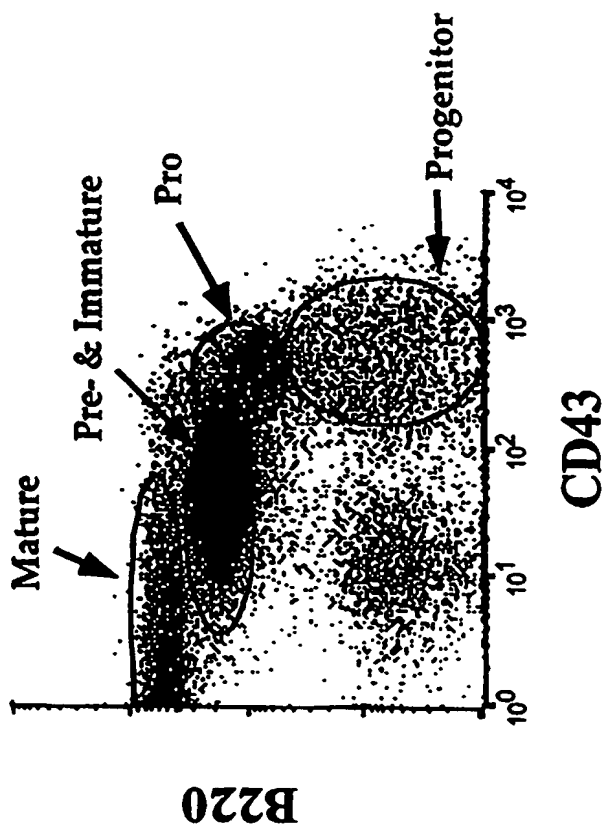
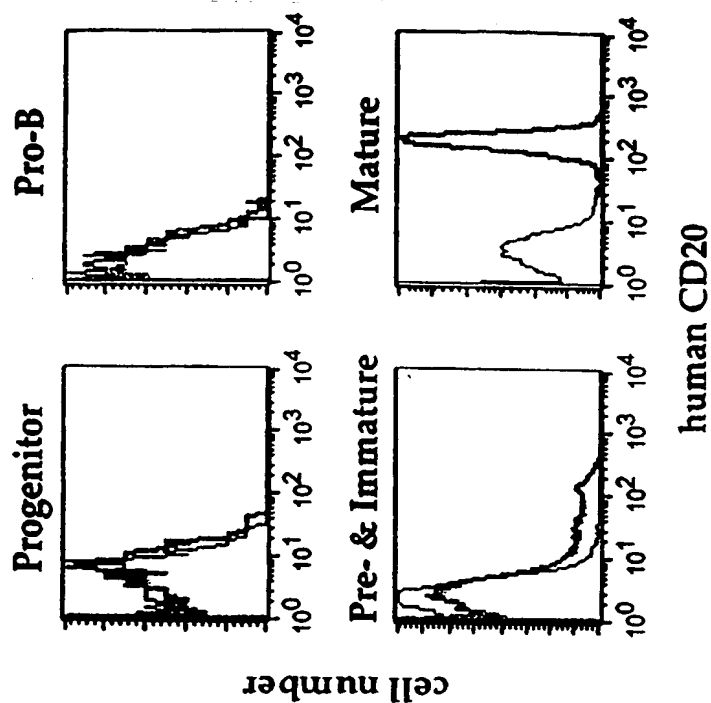


Figure 3

Expression of human CD20 in Tg⁺ mouse splenic B cells

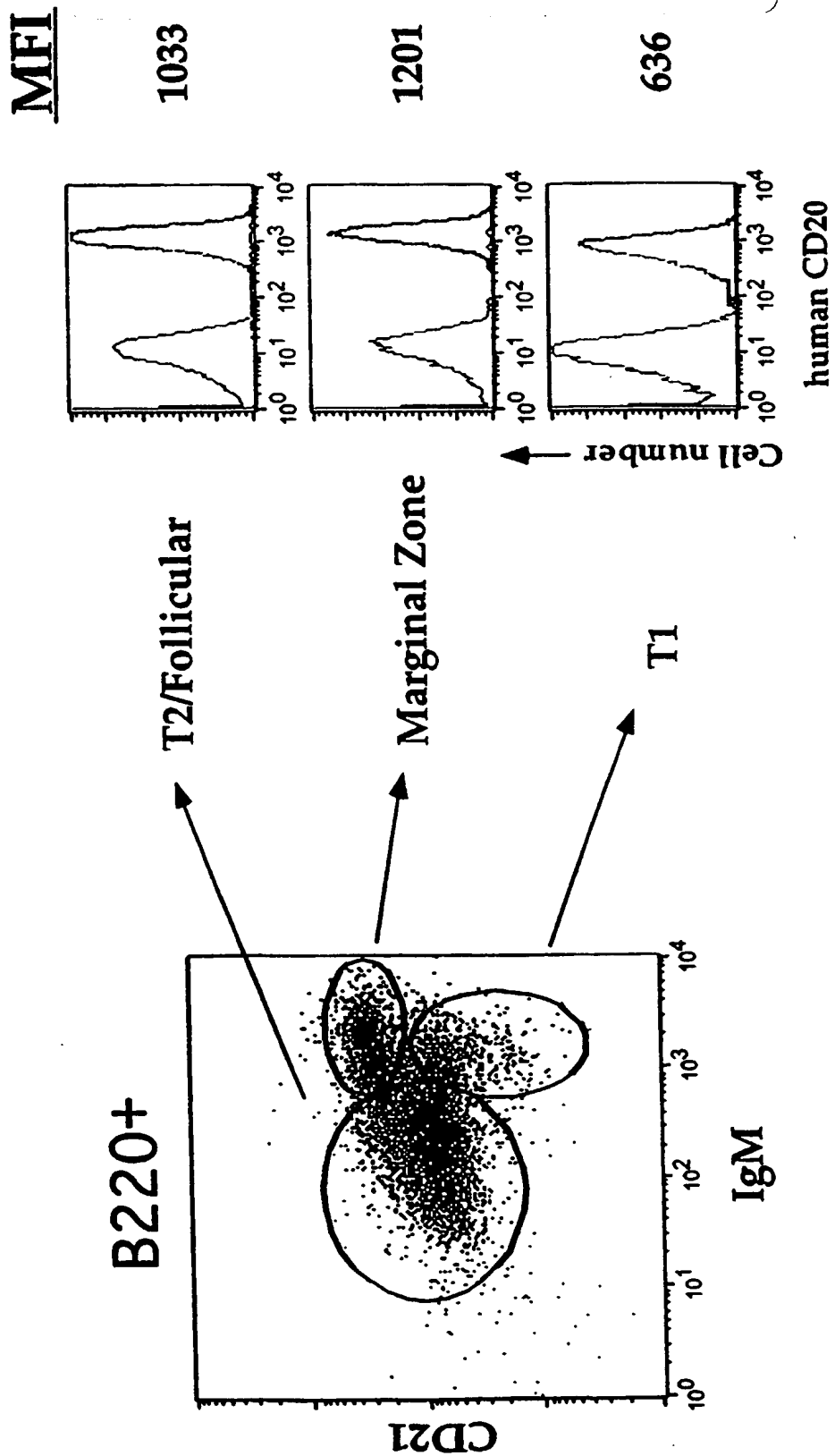


Figure 4

Expression of human CD20 in Tg⁺ mesenteric LNs

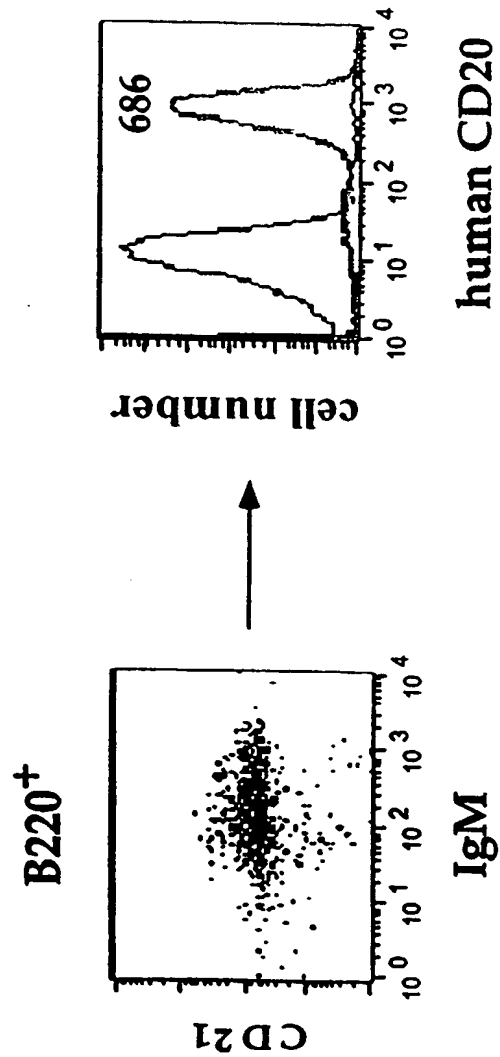


Figure 5

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Expression of human CD20 in Tg⁺ Peyer's Patches

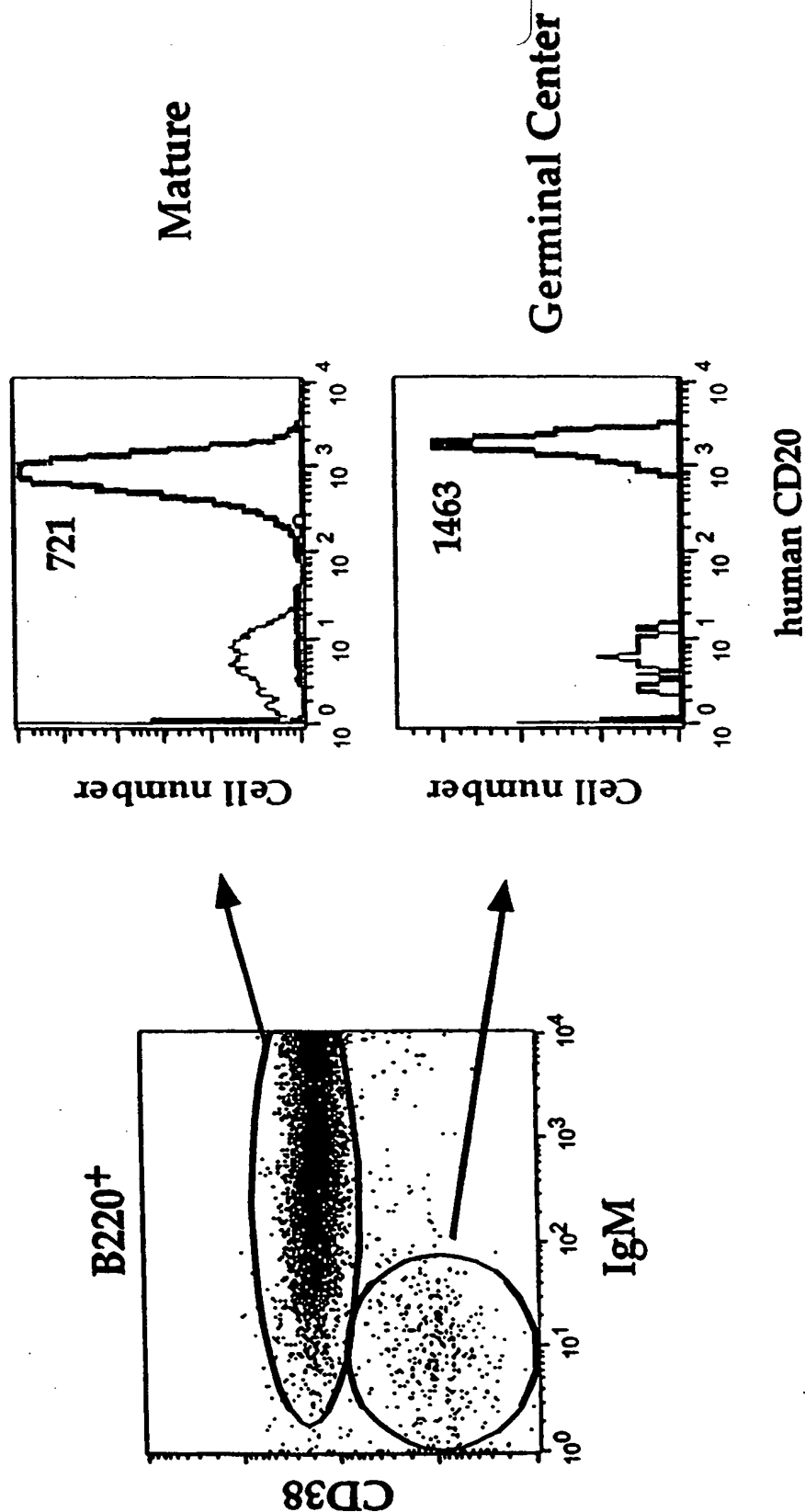
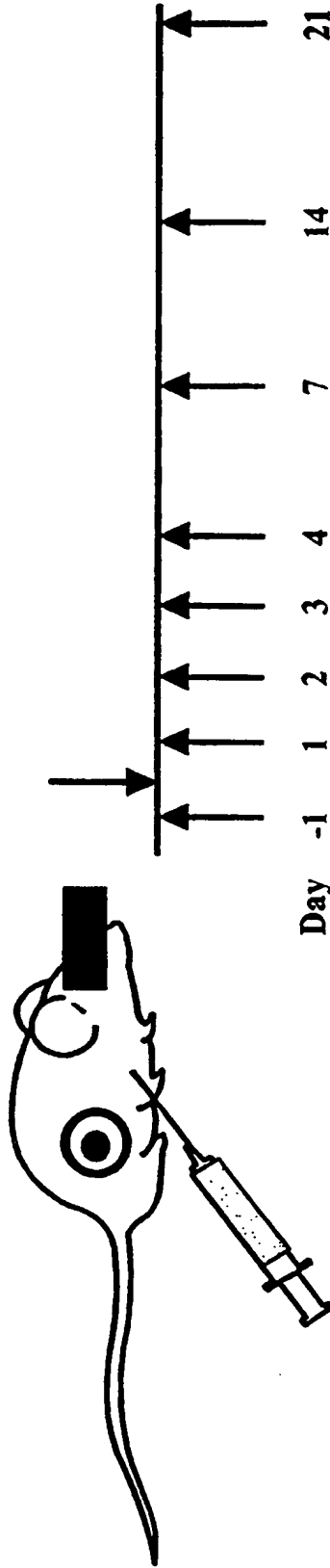


Figure 6

Effects of anti-CD20 mAb in mice

1.0 mg anti-CD20 mAb [\approx 50 mg/kg; 3.5 gm for 70 kg man]



Day -1 1 2 3 4 7 14 21

FACS
Peripheral Blood
Spleen
LN
Bone Marrow
Peyer's Patch
Serum levels of anti-CD20 mAb

Figure 7

Depletion of peripheral B cells with anti-CD20 mAbs

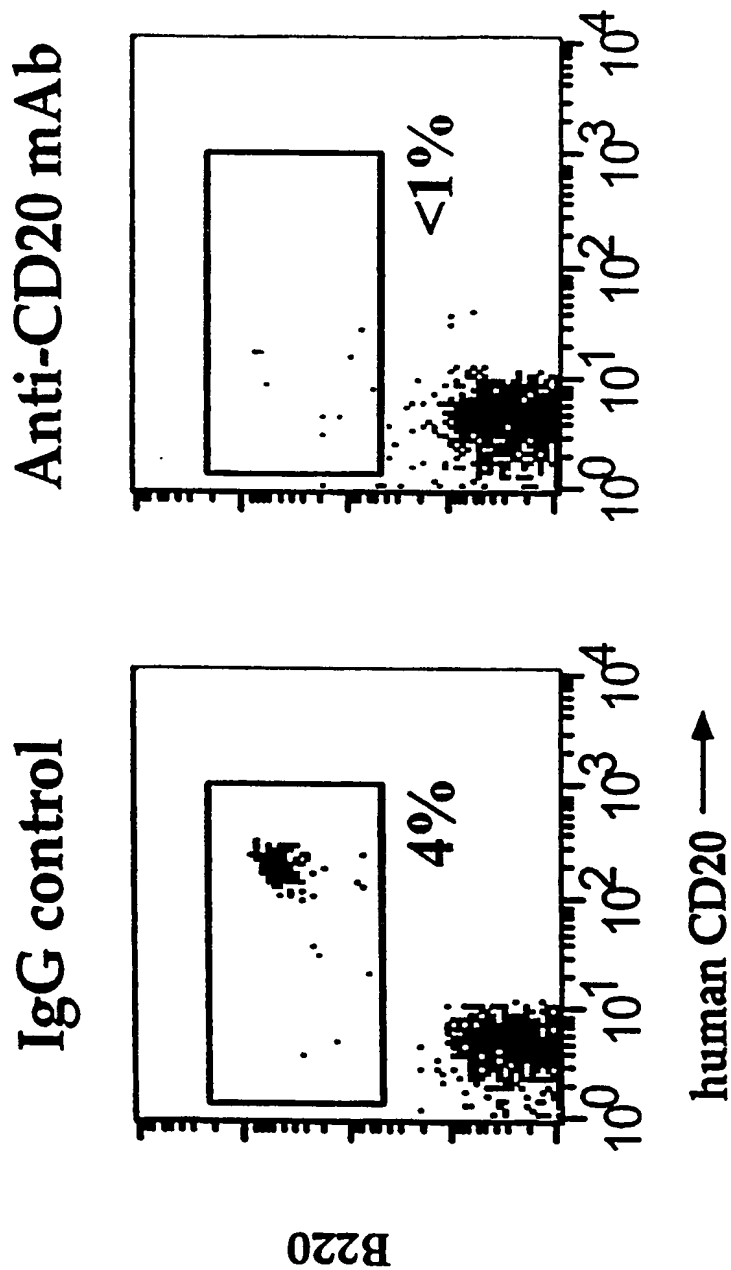


Figure 8

Depletion of mature peripheral LN B cells by anti-CD20 mAb

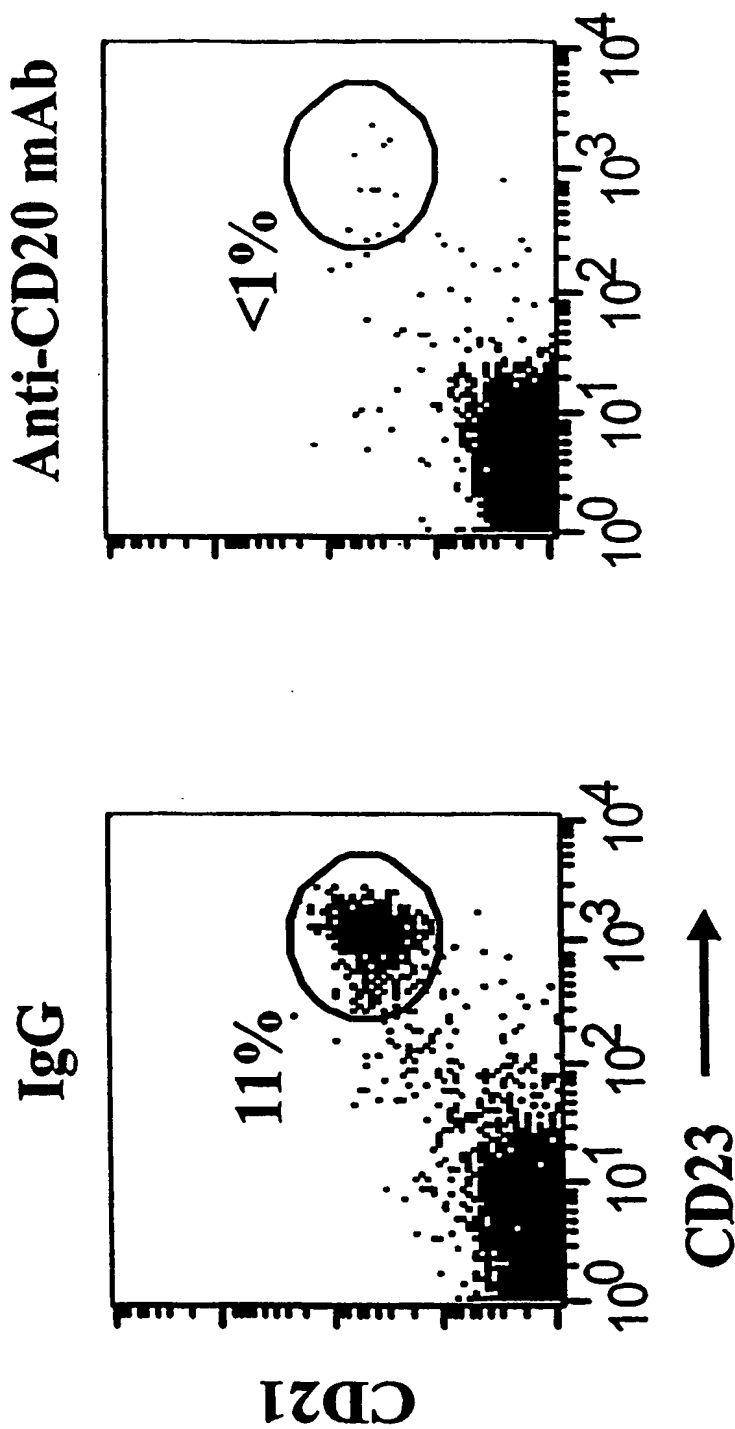


Figure 9

Depletion of splenic T2 B cells by anti-CD20 mAbs

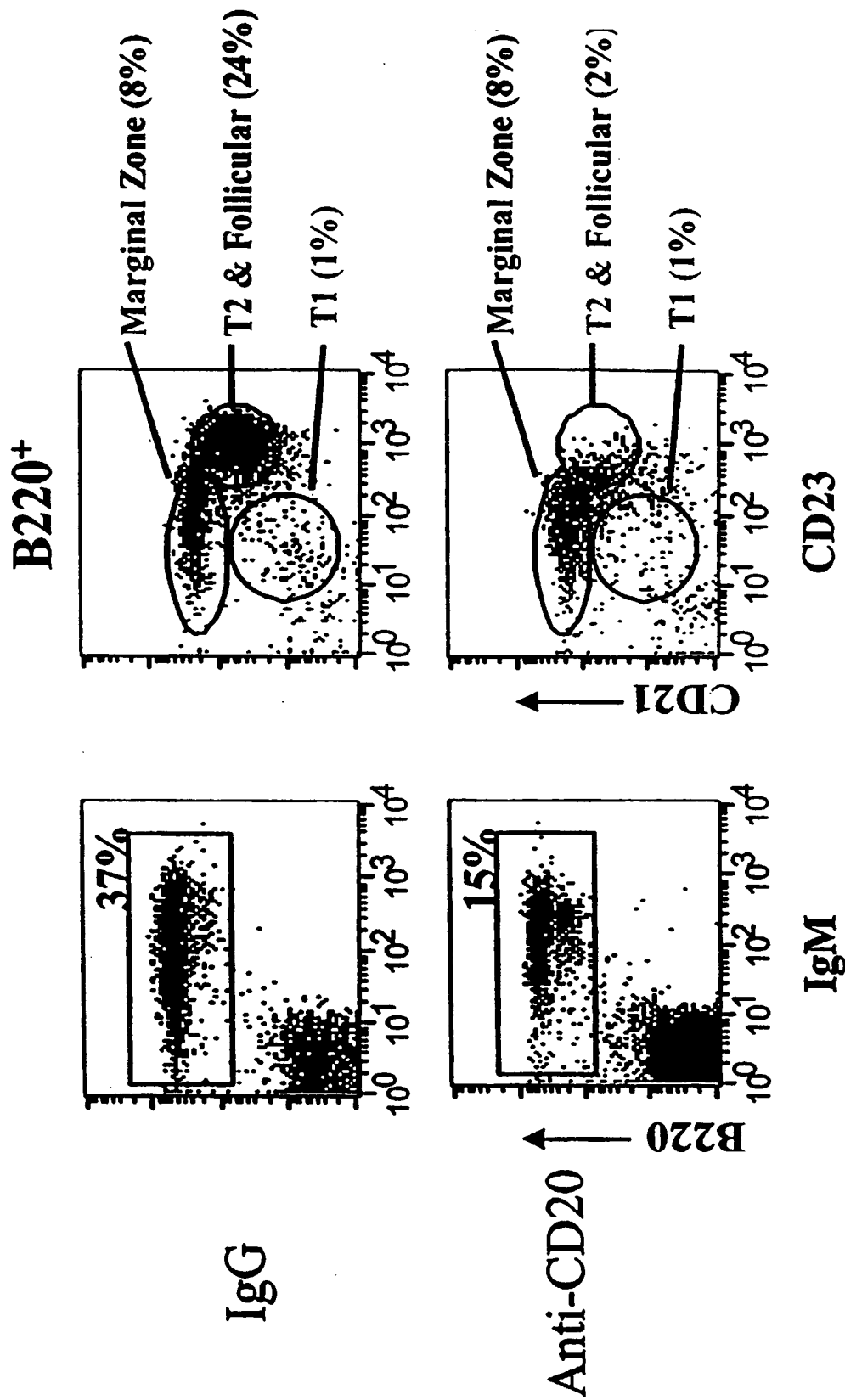


Figure 10

Depletion of re-circulating mature B cells by anti-CD20 mAbs

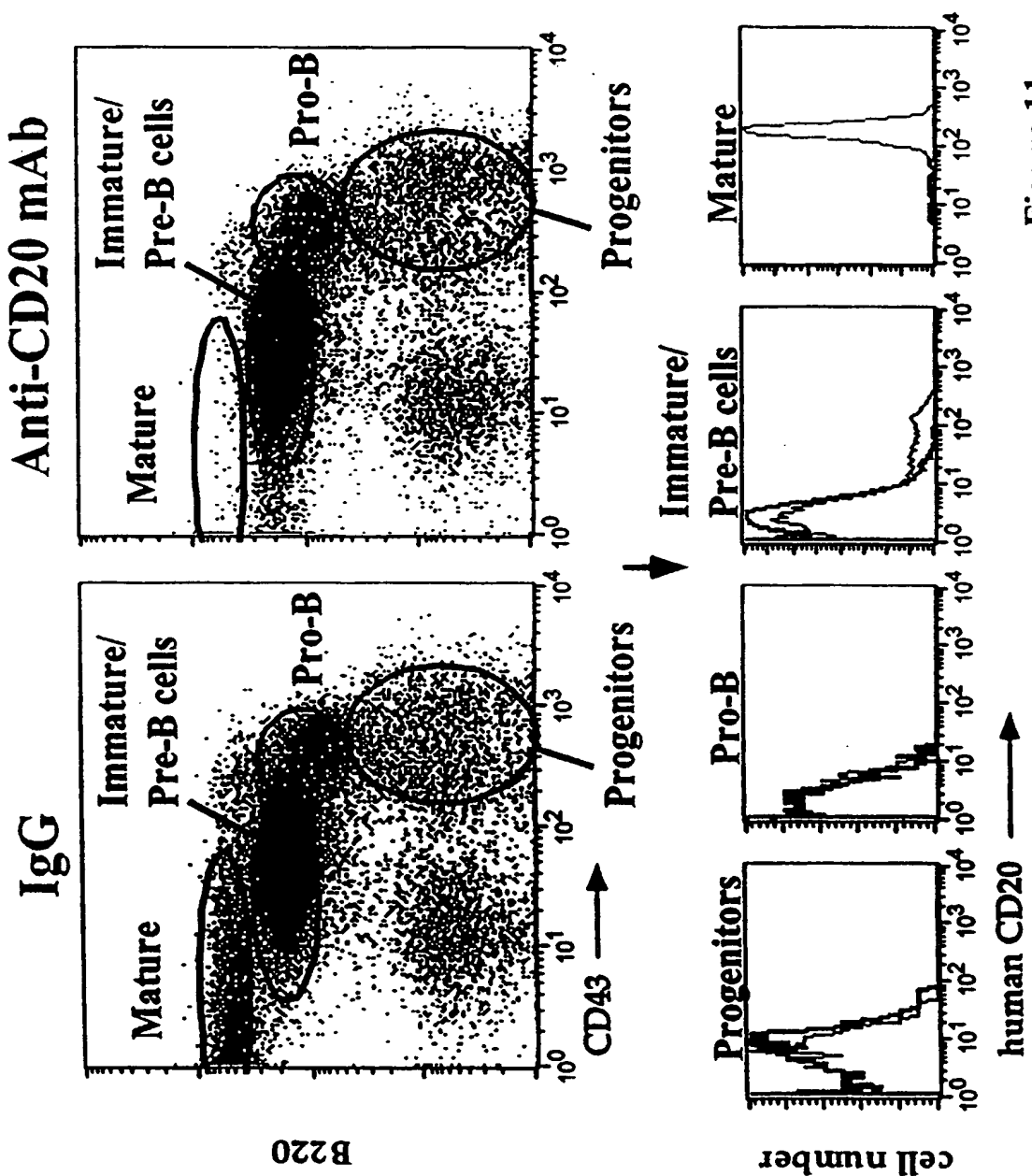


Figure 11

Resistance of Peyer's Patches Germinal Center B cells to anti-CD20 mAbs

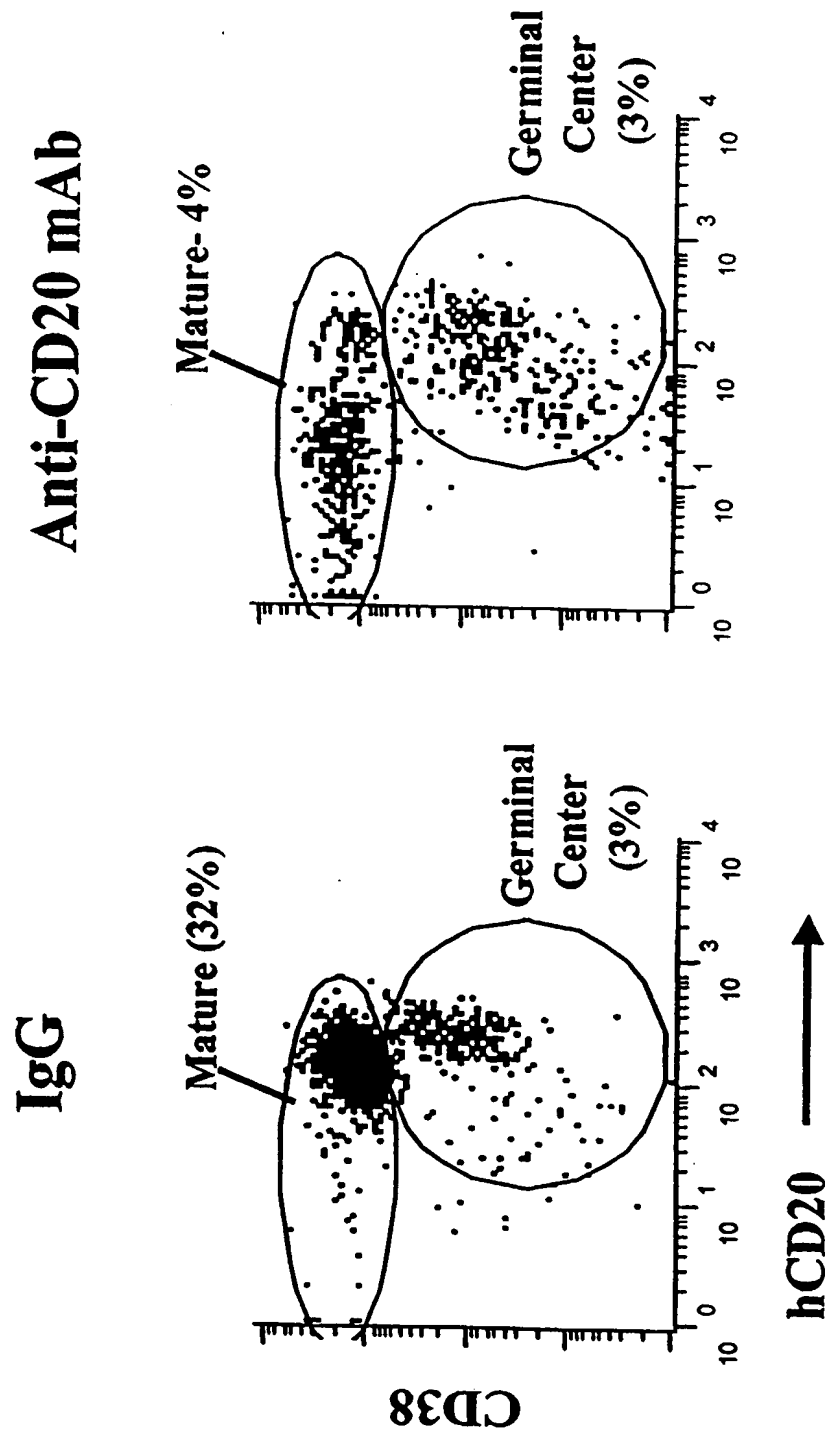


Figure 12

Depletion & Recovery of B cells following anti-CD20 mAb Rx

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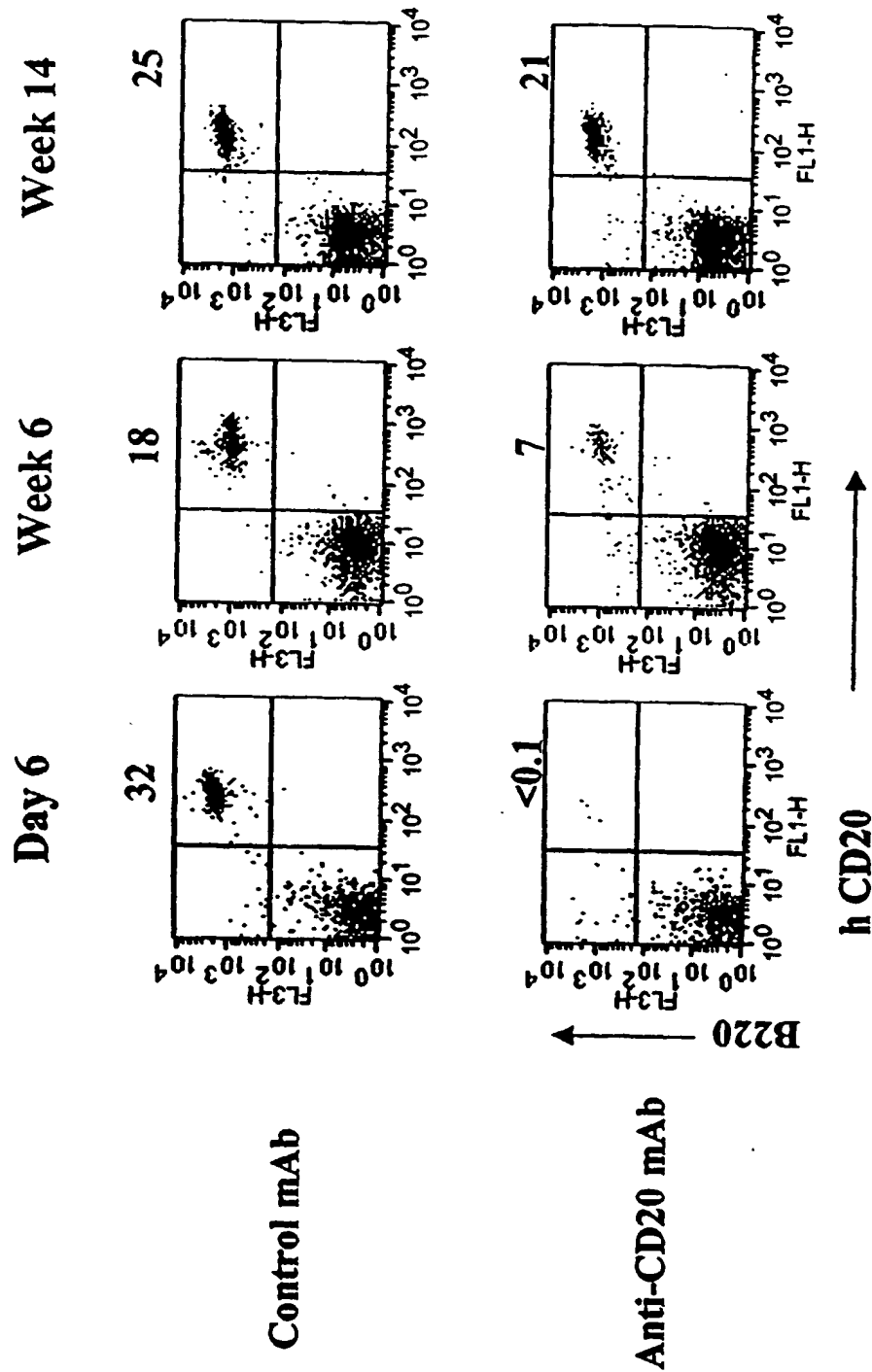
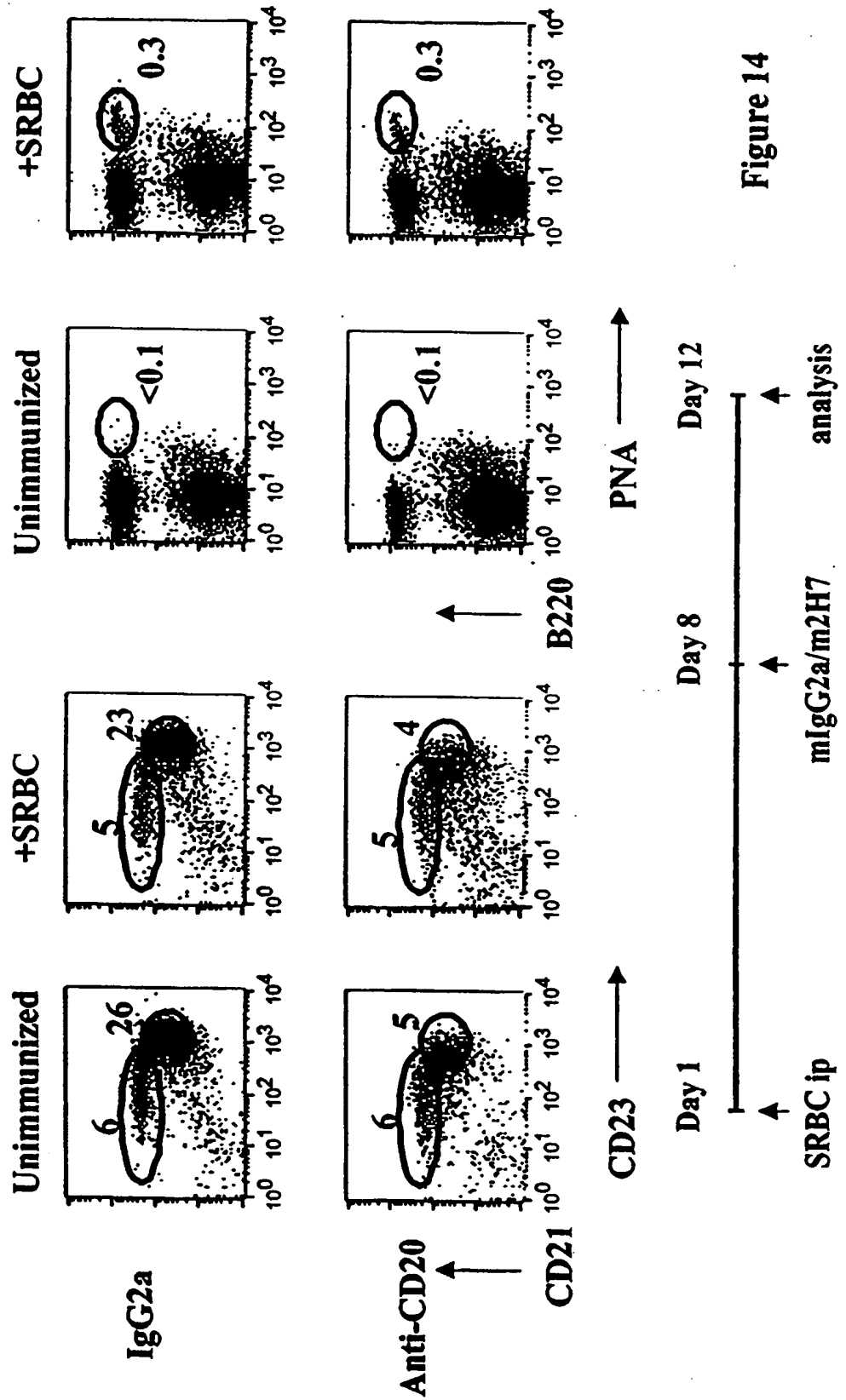


Figure 13

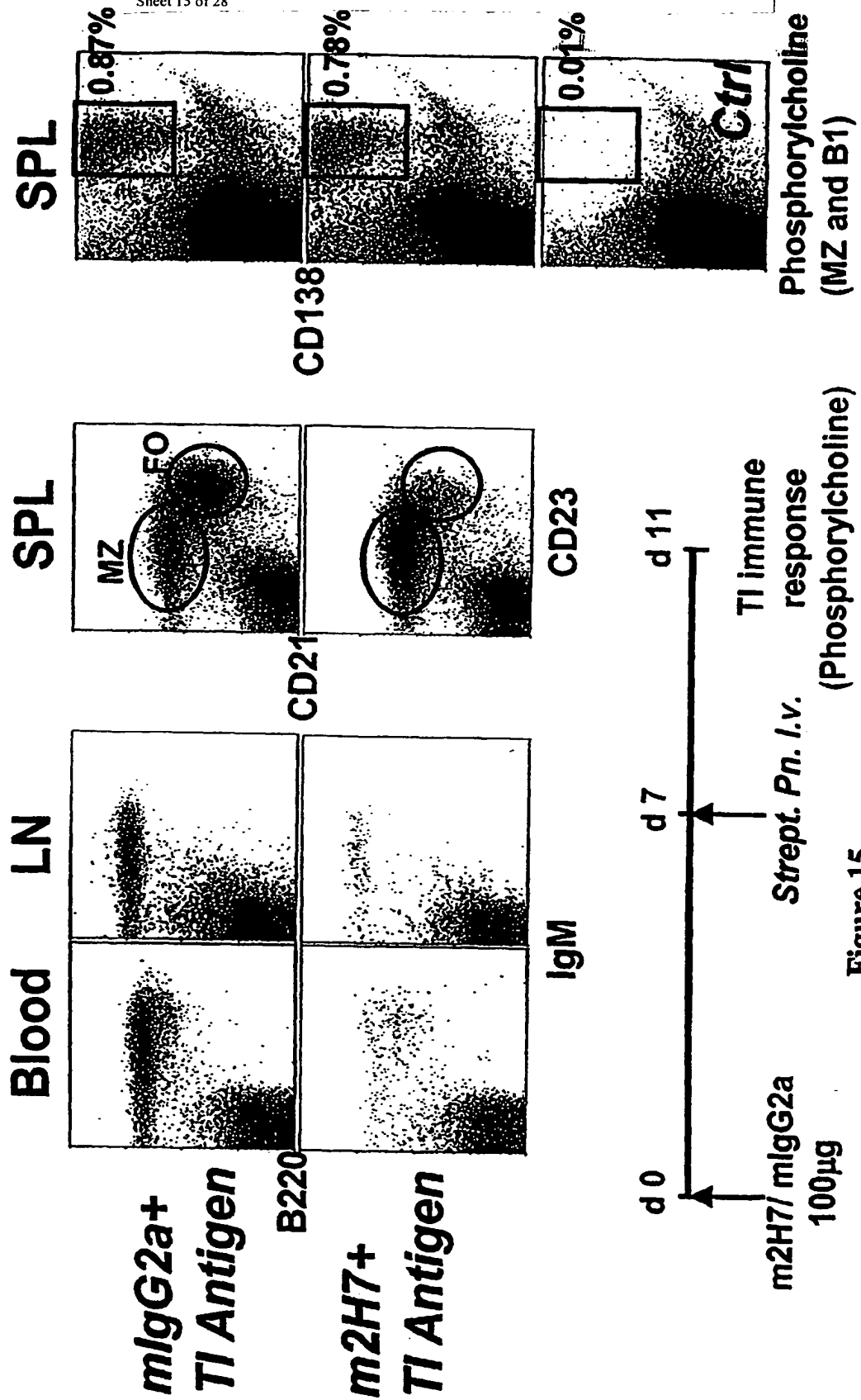
Resistance of Splenic Germinal Center B cells to short-term anti-CD20 mAb Rx

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Non-depleted MZ and B1 B cells confer protection to T-Independent antigens



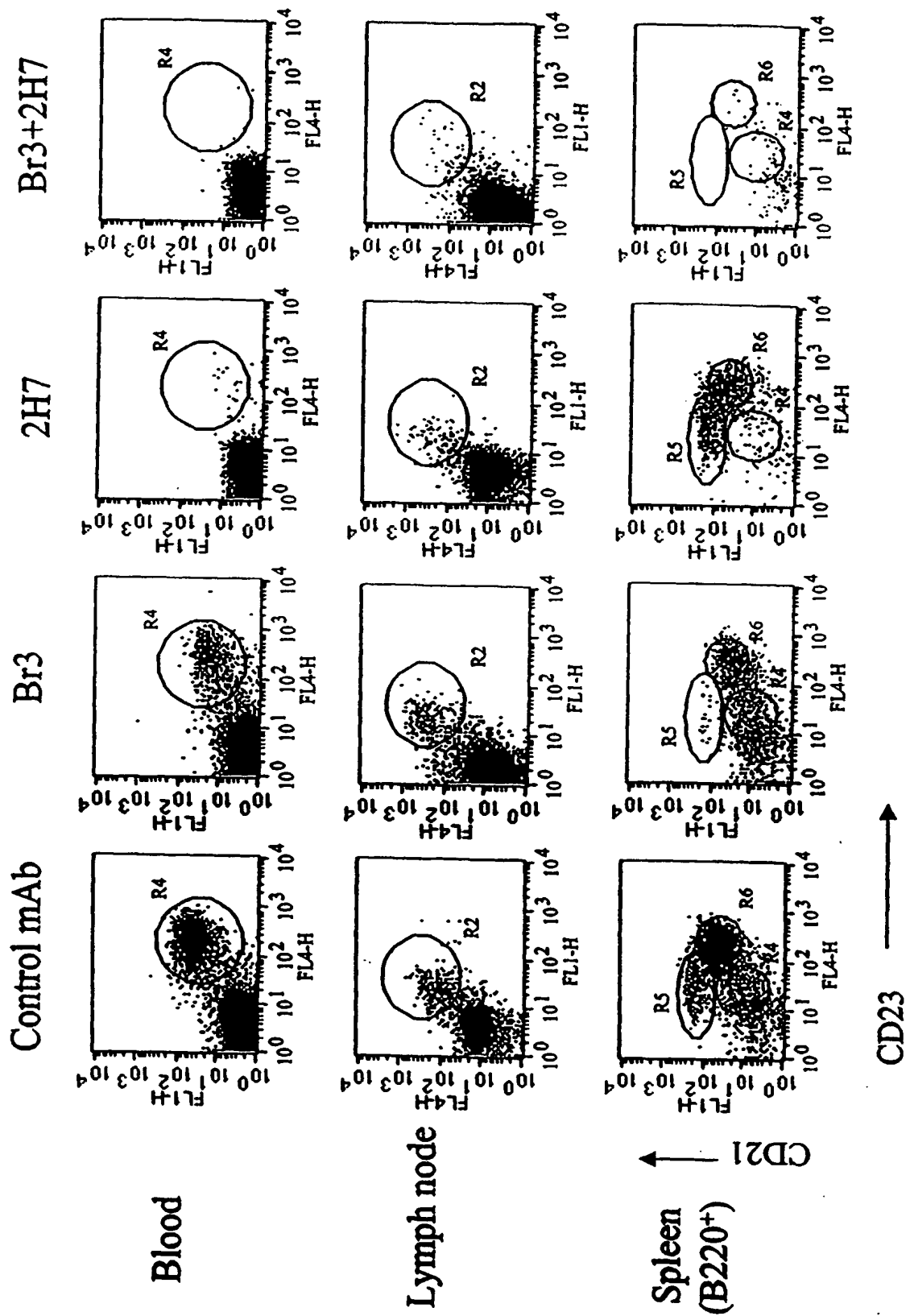


Figure 16

In Peyer's Patches

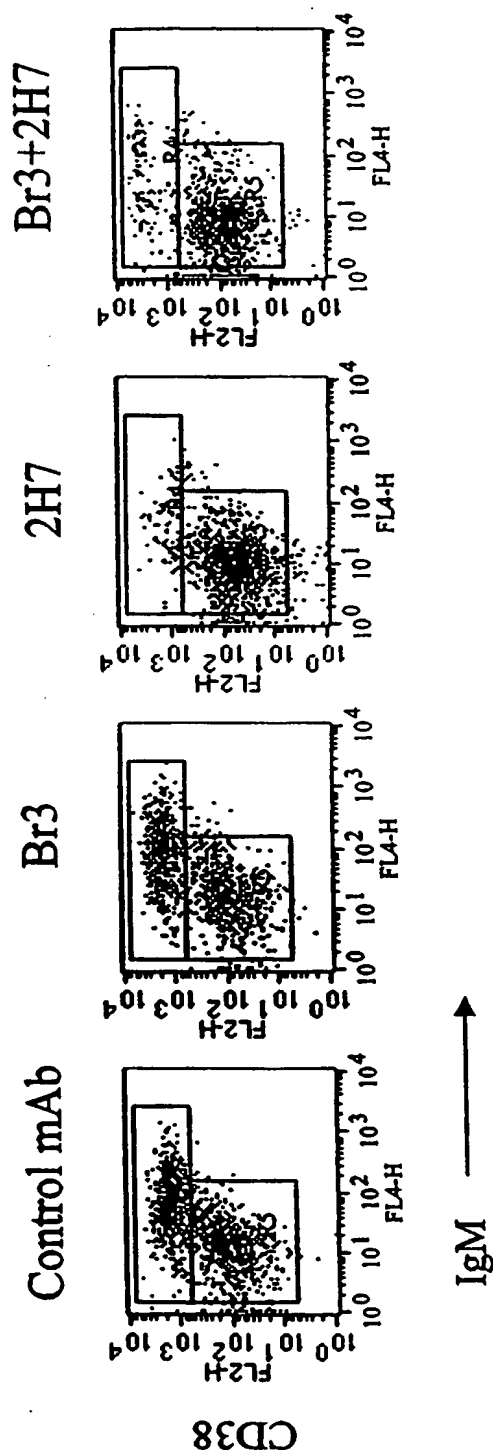


Figure 17

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Plasma cells are not depleted following long-term anti-CD20 mAb treatment

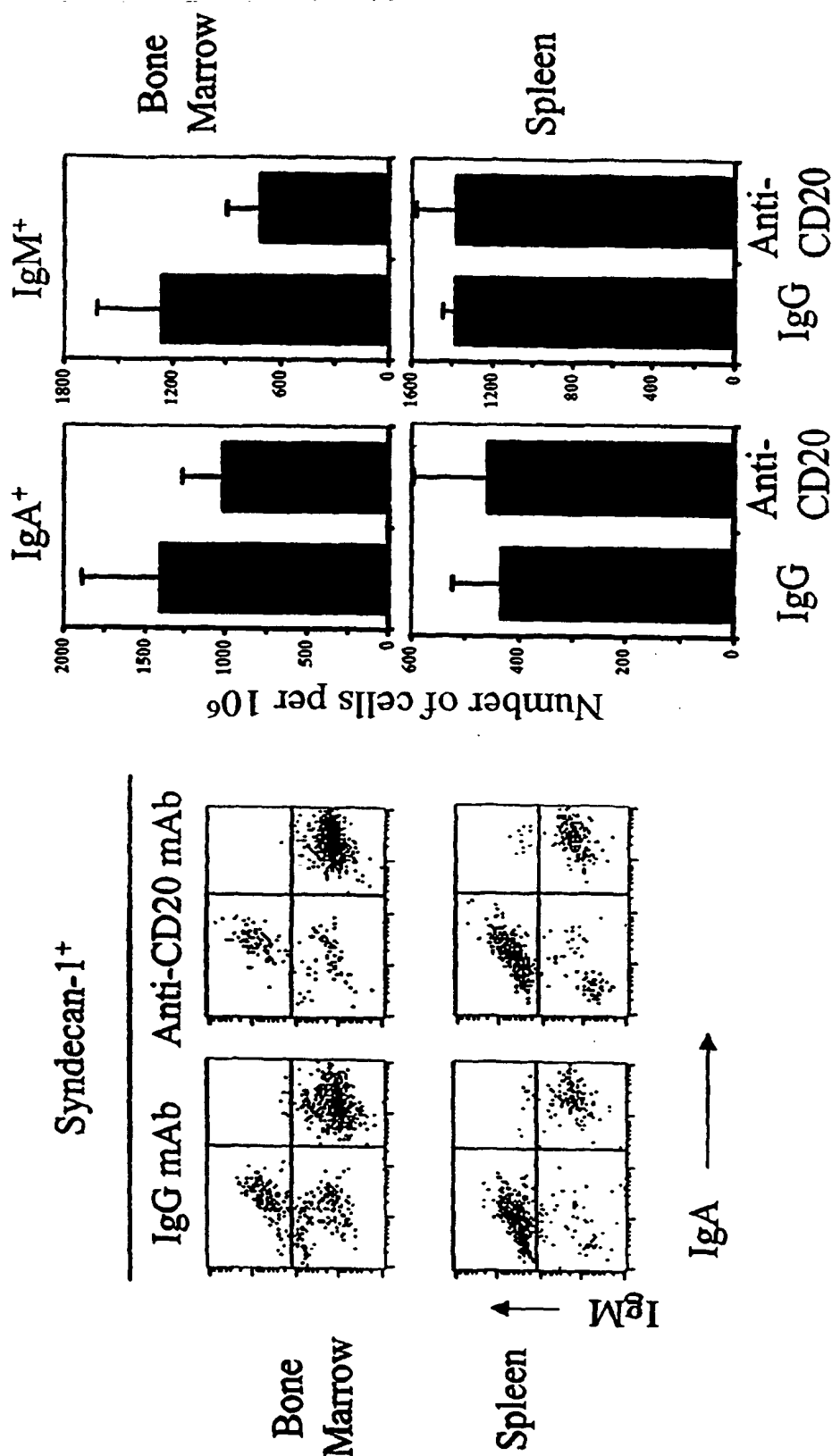


Figure 18

Depletion of NK cells by PK-136 mAb

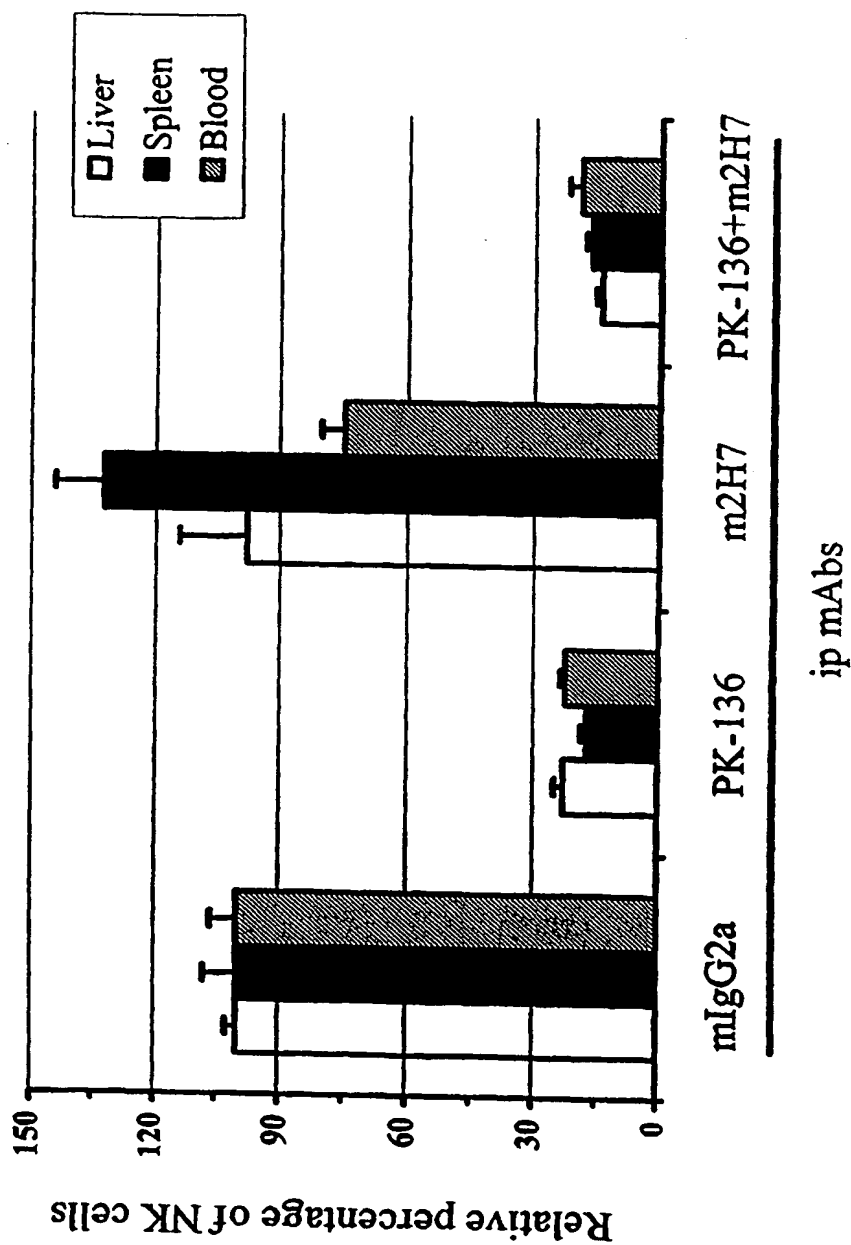


Figure 19

NK cells play a role in 2H7-mediated B cell depletion

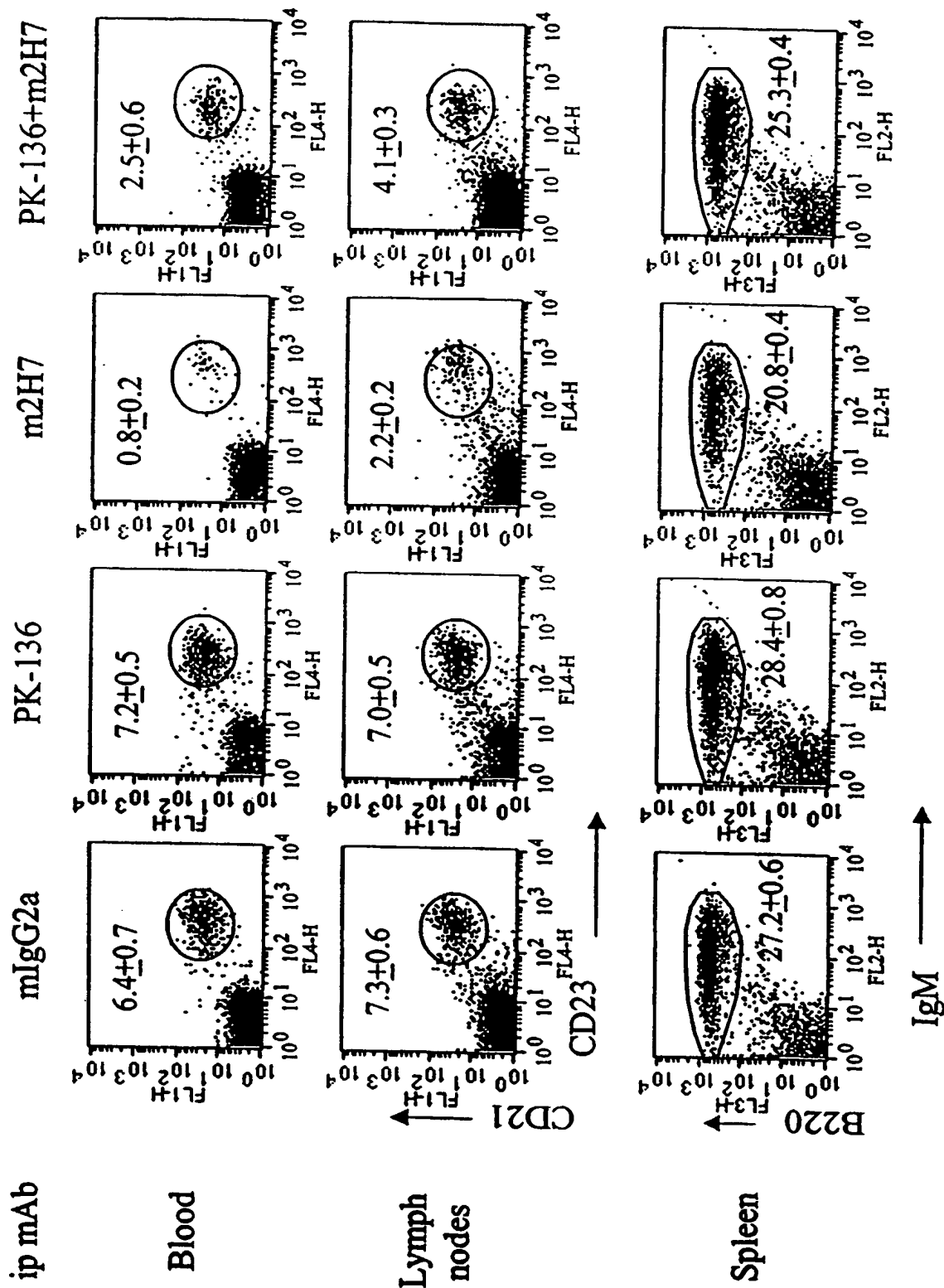


Figure 20

FIGURE 21A

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TNFPEPPQDQESSPIENDSSP"

FIGURE 21B

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781 catagtcttc ctgtcagcag aagaaaaaaa agaacagact attgaaataa aagaagaagt
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1441 attgttttaa ggatgataaa aaaaaaaaaa aaa

Figure 21C

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Figure 21C cont'd

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Figure 21C cont'd

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Figure 21C cont'd

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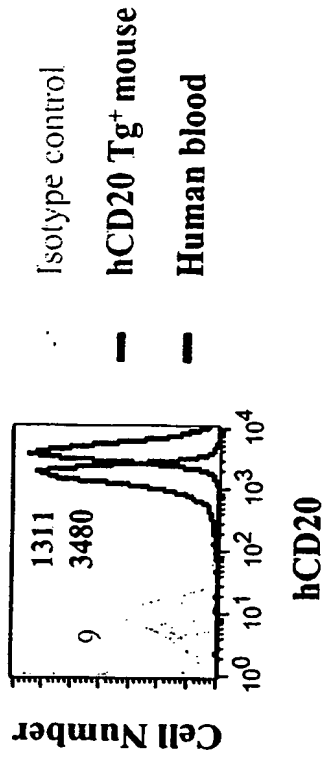
FIGURE 21D

Mouse CD20

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1321 gtaatggttt tccgcattt cctccatcag cagttacagc agaaggagtc agagagtca
1381 gggaattc

Figure 22

Human CD20 expression in peripheral blood



*: gated on B cells

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